18 VAC 70-20-10. Definitions.

The following words and terms when used in this chapter, shall have the following meaning meanings unless the context clearly indicates otherwise:

"Board" means the Board for Geology.

"Geologist" means a person engaged in the public practice of geology.

"Geology" means the science dealing with (i) the earth and its history in general; (ii) the investigation, prediction, evaluation, and location of materials and structures which compose the earth; (iii) the natural processes that cause changes in the earth; and (iv) the application of knowledge of the earth, its processes, and its constituent rocks, minerals, liquids, gases and other natural materials.

"Practice of geology" means the performance of any service or work for the general public wherein the principles and methods of geology are applied.

"Qualified geologist" means an uncertified person who possesses all the qualifications specified in §54.1-1403 of the Code of Virginia for certification.

"Related geological science degree" means a degree that shall include, but not be limited to, a degree in economic geology or petroleum geology.

"Responsible charge" means the direct control and supervision of the practice of geology.

"Supervision" means quality control review of all significant data collection, interpretation and conclusions.

"Virginia certified professional geologist" means a person who possesses all qualifications specified in this chapter for certification and whose competence has been attested by the board through certification.

18 VAC 70-20-20. Determining qualifications for applicants. (Repealed.)

In determining the qualifications of an applicant for certification, a majority vote of members of the board shall be required.

18 VAC 70-20-30. Fees.

All fees for application, examination, renewal, and reinstatement shall be established by the board pursuant to §54.1-201 of the Code of Virginia. All fees are nonrefundable and shall not be prorated.

1. The application fee for certification shall be \$40.

- 2. The fee for renewal of certification shall be \$80.
- 3. The fee for taking the examination or reexamination for certification shall be \$100. The fee for examination or reexamination is subject to contracted charges to the department by an outside vendor. These contracts are competitively negotiated and bargained for in compliance with the Virginia Public Procurement Act (§11-35 2.2-4300 et seq. of the Code of Virginia). Fees may be adjusted and charged to the candidate in accordance with this contract.
- 4. The penalty fee for late renewal shall be \$25 in addition to the renewal fee.
- 5. The reinstatement fee shall be \$160.
- 6. The fee for duplicate wall certificates shall be \$25.
- [7. The fee for paying any of the above fees with a check or other instrument not honored by the bank or other financial institution upon which it is drawn shall be \$25.]

18 VAC 70-20-50. Reinstatements.

If the certificate holder fails to renew the certificate within six months following the expiration date, the certificate holder will be required to apply for reinstatement of the certificate. The applicant will be required to present reasons that the certificate was allowed to expire, and the

VIRGINIA BOARD FOR GEOLOGY

Page 4 of 16

BOARD FOR GEOLOGY REGULATIONS

board may grant reinstatement of the certificate, or require requalification or reexamination, or both. The application fee for reinstatement of a certificate shall be an amount equal to twice the renewal fee.

18 VAC 70-20-60. Status of certification during the period prior to reinstatement.

- A. Reinstated certifications shall continue to have the same certification number and shall be assigned an expiration date two years from the previous expiration date of the certification expire on August 31 of the odd-numbered year following the date of reinstatement.
- B. Reinstated certifications shall be regarded as having been continuously licensed without interruption. Therefore, the holder of the reinstated certification shall remain under the disciplinary authority of the board during this entire period and may be held accountable for his activities during this period.
- C. Certifications which are not renewed or reinstated shall be regarded as expired from the date of the expiration forward.

18 VAC 70-20-70. Use of seal.

A certified professional geologist may apply a rubber stamp or preprinted seal to final and complete cover sheets and to each original sheet of plans or drawings prepared or reviewed and approved by the regulant. The seal may be applied to the cover sheet of technical reports and specifications prepared or reviewed and approved by the regulant.

- 1. All seal imprints on final documents shall be signed.
- 2. Application of the seal and signature indicates shall indicate acceptance of responsibility for work shown thereon.
- 3. The seal shall conform in detail and size to the design illustrated below:



* The number referred to is the number, usually three or four digits, as shown on the wall certificate and is the license renewal number issued each biennium as indicated on the licensee's pocket card. The number will not change every two years, but is permanent.

18 VAC 70-20-80. Qualifications for certification.

A. Each applicant for certification as a certified professional geologist in Virginia shall meet the education, experience and examination requirements as specified in §54.1–1403 of the Code of Virginia.:

- 1. Make application on forms provided by the board;
- 2. Be of ethical character;
- 3. Hold a baccalaureate or higher degree from an accredited college or university with a major in geology, engineering geology, geological engineering or a related geological science. In the absence of one of the aforementioned degrees, each applicant shall provide evidence of the satisfactory completion of 30 semester hours (or the equivalent) of geological science courses including, but not limited to, the following subjects:
 - a. Stratigraphy;
 - b. Structural geology;
 - c. Mineralogy;
 - d. Paleontology;
 - e. Petrology;
 - f. Geomorphology; and

g. Field geology.

At least 12 semester hours must have been completed in four of the seven subjects listed in this subsection.

- 4. Provide the board with written documentation that demonstrates that the courses satisfactorily completed by the applicant are equivalent to those required by this section.
- 5. Have at least seven years of geological work that shall include either a minimum of three years of geological work under the supervision of a qualified or certified professional geologist, or a minimum of three years of experience in responsible charge of geological work. The work shall include, but not be limited to, one or more of the following areas:

a. Mineralogy.

- (1) Identify and classify major rock types.
- (2) Identify mineral assemblages.
- (3) Determine probable genesis and sequence of mineral assemblages.
- (4) Identify minerals on the basis of chemical composition.
- (5) Predict subsurface mineral characteristics on the basis of exposures and drillholes.

b. Petrography/petrology.

- (1) Identify and classify major rock types.
- (2) Determine physical properties of rocks.
- (3) Determine chemical properties of rocks.
- (4) Determine types or degrees of rock alteration.
- (5) Determine suites of rock types.

c. Geochemistry.

- (1) Establish analytical objectives and approaches.
- (2) Evaluate geochemical data.
- (3) Construct models based on results of geochemical analysis.
- (4) Make recommendations based upon results of geochemical analyses.

d. Hydrogeology.

- (1) Design and interpret hydrologic testing programs.
- (2) Utilize chemical data to evaluate hydrogeologic conditions.
- (3) Apply geophysical methods to analyze hydrogeologic conditions.
- (4) Determine physical and chemical properties of aquifers and vadose zones.
- (5) Determine groundwater flow systems.
- (6) Evaluate groundwater resources.

- (7) Evaluate groundwater quality.
- (8) Design wells and drilling programs.
- (9) Develop groundwater resource management plans.
- (10) Plan and evaluate remedial action programs.

e. Engineering geology.

- (1) Provide geological information and interpretations for engineering design.
- (2) Identify and evaluate potential seismic and other geologic hazards.
- (3) Provide geologic consultation during and after construction.
- (4) Develop and interpret engineering geology maps and sections.
- (5) Evaluate materials resources.
- (6) Define and establish site selection and evaluation criteria.
- (7) Design and implement field and laboratory programs.
- (8) Describe and sample soils for geologic analysis and materials properties testing.

f. Mining geology.

- (1) Formulate exploration programs.
- (2) Implement field investigations on prospects.

- (3) Perform geologic interpretations for mineral reserves.
- (4) Perform economic analyses/appraisals.
- (5) Provide geologic interpretations for mine development and production activities.
- (6) Provide geologic interpretations for mine abandonments, closures, or restorations.

g. Petroleum geology.

- (1) Formulate exploration programs.
- (2) Implement field investigations on prospects.
- (3) Perform geologic interpretations of physical properties and hydrocarbon reserves.
- (4) Perform petroleum economic analyses/appraisals.
- (5) Provide geologic interpretations for development and production activities.
- (6) Provide geologic interpretations for abandonments, closures, or restorations.

- B. Each year of full-time undergraduate study in the geological sciences shall count as one-half year of experience up to a maximum of two years, and each year of full-time graduate study shall count as a year of experience up to a maximum of three years. Credit for undergraduate and graduate study shall in no case exceed a total of four years toward meeting the requirements for at least seven years of geological work. The board may consider in lieu of the above-described geological work, the cumulative total of geological work or geological research of persons occupying research or post-graduate positions as well as those teaching geology courses at the college or university level, provided such work or research can be demonstrated to be of a sufficiently responsible nature to be equivalent to the geological work required above.
- C. A year of full-time employment is a minimum of 1,760 hours or 220 workdays in a 12-month period. More than 1,760 hours or 220 workdays during a 12-month period shall not be considered as more than one year of full-time experience. Partial credit may be given for actual hours of work or workdays experience if the applicant works as a geologist less than full time.
- D. Each applicant shall successfully pass an appropriate examination approved by the board and designed to demonstrate that the applicant has the necessary knowledge and skill to exercise the responsibilities of the public practice of geology.

18 VAC 70-20-90. Certification by reciprocity Waiver of examination.

Any person certified, registered or licensed in another state, jurisdiction or territory of the

United States may be granted a Virginia certificate without written examination, provided that:

- 1. The applicant meets all the requirements for certification in Virginia; and
- 2. The applicant holds a currently valid license in good standing in another jurisdiction based upon successful completion of a comparable exam.

The board may waive the examination requirement for any applicant who makes written application, otherwise meets the requirements of Chapter 14 (§ 54.1-1400 et seq.) of Title 54.1 of the Code of Virginia and also meets one of the following conditions:

- Provides evidence of at least 12 years of geological work that includes the geological work as specified in 18 VAC 70-20-80; or
- 2. Provides evidence of an unexpired certificate of registration, certification or license to engage in the practice of geology issued on the basis of comparable requirements by a proper authority of a state, territory or possession of the United States or the District of Columbia.

18 VAC 70-20-105. Change of address or name.

Each certified professional geologist shall notify the board, in writing, of any change of address or name. This notification shall be sent to the board within 30 days after such change of address or name.

18 VAC 70-20-110. Compliance with other laws.

A certified professional geologist:

- Shall comply with all federal, state, and local building, fire, safety, real estate, or mining
 codes, as well as any other laws, codes, ordinances, or regulations pertaining to the practice
 of geology.
- 2. Shall not violate any state or federal criminal statute <u>involving</u>, <u>including</u> fraud, misrepresentation, embezzlement, bribery, theft, forgery, or breach of fiduciary duty relating to his professional practice.
- 3. Shall immediately notify the client or employer and the appropriate regulatory agency if his professional judgment is overruled and not adhered to in circumstances of a serious threat to the public health, safety, or welfare. If appropriate remedial action is not taken within a

- reasonable amount of time after making the report, he shall notify the appropriate governmental authority of the specific nature of the public threat.
- 4. Shall give written notice to the board, and shall cooperate with the board and the department in furnishing any further information or assistance needed, if he knows or believes that another geologist/firm may be violating any of the provisions of Chapter 14 (§54.1-1400 et seq.) of Title 54.1 of the Code of Virginia, or this chapter.

18 VAC 70-20-140. Grounds for suspension, revocation, or denial to renew or grant certification.

- A. The board may suspend, revoke, or refuse to renew the certification of any geologist who, after a <u>formal</u> hearing as provided <u>for</u> in the Administrative Process Act (§9–6.14:1 2.2-4000 et seq. of the Code of Virginia), is found to have committed:
 - Fraud or deceit in obtaining or renewing certification (See §54-1.20(5) subdivision 5 of § 54.1-111 of the Code of Virginia); or
 - 2. Any violation of Part III Standards of Practice and Conduct, other regulations of the board, or governing statutes of the board; or

- 3. An act or acts of gross negligence, incompetence, or misconduct in the practice of geology as a certified professional geologist-; or
- 4. Any conviction of a felony that in the opinion of the board would adversely affect the practice of geology.
- B. A person shall not be refused a certificate based solely on the prior conviction of a crime unless that conviction directly relates to the geology profession.

18 VAC 70-20-150. Reissuance of certificate after revocation.

An individual whose certificate has been revoked in accordance with 18 VAC 70-20-140 above shall file a new application and obtain approval of the board to regain the certificate.

I certify that this regulation is full, true, and correctly dated.
(Signature of Certifying Official)
David E. Dick, Executive Director
Virginia Board for Geology
Date: